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Paul D. Arling

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EXAMINER

NATNAEL, PAULOS M

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/922,562

Applicant(s)

ARLING, PAUL D.

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20,25-28,30-31,33-35,40 and 41 is/are rejected.
- 7) ☒ Claim(s) 21-24,29,32,36-39,42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                          |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                              | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                     | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2,4</u> . | 6) <input type="checkbox"/> Other: ____.                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent; published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **11-19, 25-28,30-31,33-35,40, and 41** are rejected under 35 U.S.C. 102(e) as being anticipated by Lin et al., U.S. Patent No. 6,633,281.

Considering claim **11**, a remote control comprising:

a) a plurality of keys comprising at least one control group of keys, is met by basic button set 20, fig.6;

b) a display displaying at least one of a plurality of device type indicators, is met by touch screen 11, fig.6;

c) visual indicia associating the one displayed device type indicator with the one control group of keys, whereby a user may readily discern which device the control group of keys is set to control, is met by ch+, ch-, mute, menu buttons which would indicate, variously, that a TV, VCR or DVD mode is selected, because ch+- buttons are not used

or required for CD players, while mute, Volume control would, which a viewer/user would readily discern.

Considering claim **12**, the remote control of Claim 11, wherein the one control group of keys are hard keys, is met by buttons 24-28, fig.6;

Considering claim **13**, the remote control of Claim 11, wherein the display displaying the device type indicator is a touch screen, is met by touch screen 11, fig.6;

Considering claim **14**, the remote control of Claim 13, wherein the remote enters a set up mode in response to a user selecting the displayed device type indicator,

Regarding claim 14,

Considering claim **15**, the remote control of Claim 11, wherein:  
the plurality of keys comprises a plurality of keys corresponding to a plurality of device types; and the control group of keys is set to control a device corresponding one of the device type keys in response to a user selecting the one device type key.

See rejection of claim 11(c).

Considering claim **16**, the remote control of Claim 15, comprising a touch screen, wherein the device type keys are soft keys displayed on the touch screen, is met by soft keys on touch screen 11 (fig.6) such as SAT, VCR, DVD, AMP1 etc.

Considering claim **17**, the remote control of Claim 16, wherein the touch screen comprises the display displaying the device type indicator.

See rejection of claim 16.

Considering claim **18**. The remote control of Claim 17, wherein the remote control enters a set up mode in response to a user selecting the displayed device type Indicator, is met by Figs. 15A to 15D.

Considering claim **19**. The remote control of Claim 18, wherein the soft keys corresponding the device types are displayed on the touch screen in response to the user initiating the set up mode, is met by Figs. 15A to 15D.

Considering claim **25**, a touch screen for use in a remote control, the touch screen adapted to comprise:

- a) a first device type indicator to indicate a device type a first control group of keys is set to control, is met by fig.2;
- b) a second device type indicator to indicate a device type a second control group of keys is set to control, is also met by fig.2, where it is shown that ch+, ch-, mute, menu buttons indicating a TV, VCR or DVD mode is selected, and ch+-

buttons are not used or required for CD players, while mute, Volume control would, which a viewer/user would readily discern.

c) a third device type indicator to indicate a master control mode of the remote control, is met by MAIN (fig.2)

Considering claim **26**, a method of configuring a remote control comprising a display screen, the method comprising:

a) displaying a first device type indicator to indicate a device type a first control group of keys is set to control, in response to a user initiating a set up mode for the first control group of keys, is met by fig.3 which is displayed in response to a user pressing the TV button on touch screen Fig.2;

b) displaying a first plurality of device types the first control group of keys may be set to control; in response to a user selecting one of the first plurality of device types, setting the first control group of keys to control a device corresponding to the selected one of the first plurality of device types, is met by device types buttons displayed in response to the user pressing the basic button set 20, figs 1 and 2; (see the disclosure on col. 4, lines 14-16)

c) replacing the first device type indicator with a device type indicator corresponding to the selected one of the first plurality of device types, is met by fig.2.

d) exiting the set up mode, is **inherent** because after any set up mode operation is complete the system would have to exit to perform another function.

Considering claim **27**, the method of Claim 26, wherein the display screen comprises a touch screen and the method comprises: sensing a user selecting the first device type indicator via the touch screen; and in response to sensing the user selecting the first device type indicator, initiating the set up mode for the first control group of keys, is met by the touch screen 11, fig.1

Considering claim **28**, the method of Claim 26, wherein the display screen comprises a touch screen and the method comprises: sensing a user selecting the one of the first plurality of device types via the touch screen; and in response to sensing the user selecting the one of the first plurality of device types, setting the first control group of keys to control the device corresponding to the selected device type.

See rejection of claim 27;

Considering claim **30**, the method of Claim 29, comprising displaying a third device type indicator, wherein the third device type indicator indicates to which master control mode the remote control is set, is met by MAIN button (fig.2).

Considering claim 31, a method of manufacturing a remote control, the method comprising:

- a) visually associating a first control group of keys with a first device type indicator, is met by "vol>","<vol" buttons fig.1, which may indicate controlling AMP1, CD devices;
- b) adapting the first device type indicator to indicate one of a plurality of available device types corresponding to a plurality devices the first control group of keys may be set to control, is inherent because as in Fig.3 for TV the device is capable of selecting and displaying for other devices such as the AMP as well.
- c) visually associating a second control group of keys with a second device type indicator, is met by "ch+", "ch-" buttons fig.1, which may indicate controlling TV and Sat devices.
- d) adapting the second device type indicator indicate one of a plurality of available device types corresponding to a plurality of devices the second control group of keys may be set to control, is met by Fig.3, where TV button is selected and soft keys for controlling the TV are displayed.

Considering claim 33, the method of Claim 31, comprising causing a touch screen to display the plurality of device types the first control group of keys may be set to control, is met by the touch screen displays such as shown in figs. 2-4,8 and 15.



Considering claim **34**, the method of Claim 33, comprising causing the touch screen to display, in response to a user selecting the first device type indicator, the plurality of device types the first control group of keys may be set to control.

See rejection of claim 33.

Considering claim **35**, A computer readable medium for use in a remote control comprising a display, the medium comprising programming for:  
displaying a first device type indicator, wherein the First device type indicator indicates a device type a first control group of keys is set to control;

setting the first control group of keys to control a device type selected by a user from a plurality of device types;

displaying the plurality of device types the first control group of keys may be set to control; and displaying a second device type indicator contemporaneously with the first device type indicator, wherein the second device type indicator indicates a device type a second control group of keys is set to control.

See rejection of claim 26;

Considering claim **40**, a remote control comprising:

a) a first control group of keys set to control one of a plurality of devices, is met by basic button set 20, fig.1;

b) means for indicating to a user which of the plurality of devices the first control group of keys is set to control, is met by "vol>","<vol" buttons fig.1, which may indicate controlling AMP1, CD devices;

c) a second control group of keys set to control one of a plurality of devices, is met by basic button set 20, fig.1;

d) means for indicating to a user which of the plurality of devices the second control group of keys is set to control, is met by "ch+", "ch-" buttons fig.1, which may indicate controlling TV and Sat devices.

e) means for setting the first control group of keys to a different one of the plurality of devices, is met by user selecting remotely TV or any of the soft buttons to change the screen.

f) means for indicating to a user a selection comprising the plurality of devices from which the user may select the different one device, is met by Fig.2 where is displayed plurality of devices from which the user may select the different one device.

Considering claim 41, the remote control of Claim 40, comprising means for indicating to a user in which master mode the remote control is set, is met by Main button display as in fig.2;

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **1-10, 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al., U.S. Patent No. 6,633,281.

Considering claim 1, Lin et al discloses the following claimed subject matter, note;

a) a plurality of hard keys comprising at least one control group of keys, is met by basic button set 20, fig.1;

b) a touch screen operably connected and adapted: to display a plurality of soft keys corresponding to a plurality of device types controllable by the one control group of keys and to display at least one of a plurality of device type indicators, wherein the one device type indicator displayed corresponds to a device the one control group of keys is assigned to control, is met by touch screen 11, fig.1;

c) memory comprising programming for entering a set up mode and assigning a device to be controlled to the one control group of keys, is met by memory 31, fig.6;

except for;

d)...wherein the programming for assigning a device to be controlled comprises programming for: assigning, in response to selection of one of the soft keys by a user, a corresponding one of the plurality of device types to the one control group of keys, and displaying a device type indicator corresponding to the device type assigned to the one control group of keys.

Regarding d), Lin et al discloses a learning procedure or mode where it's disclosed programming the remote control code for a specific button present on the touch-type screen 11. (col. 5, lines 39+) Programming a remote control device to assign certain keys to perform a desired function is, however, well known in the art , and the Examiner takes Official Notice in that it would have been obvious to the skilled in the art at the time the invention was made to modify the reference of Lin et al by providing a the well known capability of programming the remote control in order to make the use of the remote control less complicated and easier for the viewer.

Considering claim 2, the remote control Claim 1, wherein:

the plurality of hard keys comprises a second control group of keys; and  
the touch screen is operably connected and adapted to display a second device type indicator visually associated with the second control group of keys, is met by touch screen 11 which is connected and is adapted to display several device type indicators (VCR, AMP1, DVD, etc.) such as those shown on Fig.2;

Considering claim 3, the remote control of Claim 1, wherein:

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the one control group is a channel control group; and the second control group is a volume control group, is met by "vol>","<vol" and "ch+", "ch-" buttons fig.1;

Considering claim 4, the remote control of Claim 1, wherein the programming for entering a set up mode comprises programming for displaying the soft keys corresponding to the plurality of device types controllable by the one control group of keys.

See rejection of claim 1(d).

Considering claim 5, a remote control comprising:

a) a plurality of hard keys comprising a channel control group of keys and a volume control group of keys, is met by basic button set 20, fig.6;

b) a screen displaying a first one of a plurality of device type indicators and a second one of a plurality of device type indicators, is met by touch screen 11, fig.6;

Except for;

c) visual indicia associating the first device type indicator with the channel control group of keys, and the second device type indicator with the volume control group of keys, whereby a user may readily discern which device the channel control group of keys is set to control and which device the volume control group of keys is set to control.

Regarding c), Lin et al. discloses control keys or buttons such as vol > or vol< and ch+ or ch- which is written on the buttons that indicate to the viewer the ch+ or ch-

control would control channel of the TV or cable or sat device, which would be a visual indication to the viewer. It would be obvious an obvious design choice to design the face of the remote control to indicate to the user which buttons control which devices, and therefore it would have been obvious to the skilled in the art at the time the invention was made to modify the Lin et al. reference accordingly.

Considering claim 6, the remote control of Claim 5, wherein the touch screen displays a plurality of soft keys, each corresponding to a device type at least one group of keys from volume control group of keys and the channel control group of keys may be set to control, is met by the soft keys displayed as in fig.2.

Considering claim 7, the remote control of Claim 6, wherein the touch screen displays the plurality of soft keys in response to a user initiating a set up mode to set at least one of the control groups of keys to control a device type, is met by Fig.3 wherein the TV button has been pressed (fig.2) to set up the mode as shown in fig.3;

Considering claim 8, the remote control of Claim 6, comprising:  
programming for setting a control group of keys to one of a plurality of device types in response to a user selecting a soft key corresponding to the one of a plurality of device types; and programming for displaying on the touch screen a corresponding one of a plurality of device type indicators.

See rejection of claim 7;

Considering claim **9**, the remote control of Claim 5, wherein the visual indicia comprises a stylistic marking.

See rejection of claim 5 (c).

Considering claim **10**, the remote control of Claim 5, wherein the visual indicia comprises a stylistic physical design of the remote control.

See rejection of claim 5 (c).

Considering claim **20**. A remote control comprising:

a plurality of keys comprising a first control group of keys and a second control group of keys; a first device type indicator of a first plurality of device type indicators, wherein the first plurality of device type indicators correspond to devices the first control group of keys may be set to control and the first device type indicator is visually associated with the first control group of keys, whereby a user may readily discern which device the first control group of keys is set to control based on the first device type indicator visually associated with the first control group of keys; and

a second device type indicator of a second plurality of device type indicators, wherein the second plurality of device type indicators correspond to devices the second control group of keys may be set to control and the second device type indicator is visually associated with the second control group of keys, and whereby a user may readily discern which device the second control group of keys is set to control

based on the second device type indicator visually associated with the first control group of keys; and wherein the first device type indicator is different from the second device type indicator.

Regarding claim 20, see rejection of claim 5;

***Allowable Subject Matter***

5. Claim **21-24, 29, 32, 36-39, 42** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose a first plurality of device type keys corresponding to devices the first control group of keys may be set to control upon selection of one of the first plurality of device type keys; a second plurality of device type keys corresponding to devices the second control group of keys may be set to control upon election of one of the second plurality of device type keys; and wherein the first plurality and the second plurality of device type keys are soft keys, as in claim **21**;

displaying a second device type indicator contemporaneously with the first device type indicator, wherein the second device type indicator indicates a device type a second control group of keys is set to control, as in claim **29**;

Causing a display to contemporaneously display the first device type indicator, the second device type indicator, and a master mode indicator, wherein the master mode indicator indicates in which mode the remote control is set, as in claim **32** and **42**;



***Conclusion***


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Huang et al., U.S. Pat. No. 6,437,836 discloses extended functionality remote control.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN  
July 23, 2004

  
**PAULOS M. NATNAEL**  
**PATENT EXAMINER**